

The trunk in which the pupae were found was without bark and had a well weathered surface. From its appearance and from the soft texture of the wood, the tree was estimated to have been dead for between 10 and 20 years. The diameter of the trunk at the relevant point was about 40cm and the pupae occurred in chambers arranged along the axis of the trunk 2 - 3 cm under the surface of the wood on the side of the trunk which was exposed to the sun. About 30cm of the trunk was examined and this contained six pupae. There could well have been other pupae on either side of the section examined. No larvae or adults of this or any other species were found but there were holes in the surface of the wood which were probably made by the weevil *Eremotes ater* Linnaeus. The emergence holes made by the adults (in captivity) were approximately round and 3 - 4mm in diameter.

Duffy (1952 *A Monograph of the immature stages of British and imported Timber beetles (Cerambycidae)*, British Museum, Natural History) states that the eggs of the species are laid in stumps and boles of pine, especially those of young dead pines with bark charred by fire. The site of these observations is not mentioned but, as Duffy states that he had no British larvae or pupae to examine, it was probably in Scandinavia or continental Europe. Duffy's comments suggest that the eggs are laid in relatively freshly dead wood with bark adhering. This contrasts with my observations for, estimating the development period at 3 - 4 years, the eggs in this instance would have been laid in a log which was already well rotted and almost certainly without bark.

I thank Mr E.M. Mathew, Regional Officer, Nature Conservancy Council for permission to undertake studies in the Abernethy National Reserve and Mr Stewart Taylor for helpful discussion on the age of the wood.— J.A. OWEN, 8 Kingsdown Road, Epsom, Surrey KT17 3PU.

Towards a safe and practical pest-repellent

Mr A.A. Allen, in his contribution to this subject (*Ent. Rec.* 102: 184-185), must surely have struck a major entomological nerve. It is a matter to which I too have been attending for some little time, and on which Mr Allen had previously advised me. Conditions here are such that the term self-contained is hardly an euphemism; quite a bit of time is spent in the company of my specimens and their fumigant-saturated air.

This is an introductory note only and much remains to be done. I have been using, since the early part of this year Camphor and Peppermint Oils impregnated on high-pinned natural sponge cubes. Recently other essential oils have been added to the range. My response to breathing naphthalene-enriched air appeared to have been one of increasing minor irritation. In addition I had observed a mature larva of *Anthrenus* alive but "worried" in naphthalene-saturated conditions, all of which have led me now to dispense with it.

The first thing to be said about the essential oils is that it is a pleasure to

work with them (in fact I can confirm chemotropism!). It is however their aromatic nature which is a measure of their volatility, and here there may be one source of difficulty; the application frequency may be considerable, particularly in the case of Peppermint Oil. The efficacy of these oils may be tested in various ways, by observations within cabinet drawers and by experimentation with live *Anthrenus* larvae. In the drawer, Camphor Oil applied to a sponge cube definitely slowed the metabolic rate of last instar *Anthrenus* larvae. I have not yet gauged the effect of these oils as a deterrent and this is crucial, for a first instar larval *Anthrenus* can wreak havoc without detection. As painful proof of it, I have what are now only the splendidly arranged tarsi of *Coryphinius angusticollis* Ste.

The final instar larvae of *Anthrenus* are surprisingly tenacious. I introduced adult larvae to substrates saturated with (a) Clove Oil to which they showed no reaction, (b) Camphor Oil by which they were deterred, and (c) Cedarwood Oil.* In the last case death ensued, but this could have been aided by blockage of the spiracles. Much more experimentation is required and the spectrum of materials may have to be widened. Those wishing to conduct their own trials may like to know of the following sources:

The Body Shop (most city high streets for their perfectly designated "Aromatherapy" range). Lavender and Peppermint Oils.

Bio-Science Supplies, 4 Long Mill North, Wednesfield, Wolverhampton, West Midlands WV11 1JD. (Tel: 0902-725531).

Northern Biological Supplies Ltd, 3 Betts Avenue, Martlesham Heath, Ipswich IP5 7RH. Cedarwood Oil, Methyl Benzoate.

I wish to thank Mr J. Eric Marson (Northern Biological Supplies) and Mr G. Ashton (Bio-Science Supplies) for information and comment.—P.F. WHITEHEAD, Moor Leys, Little Comberton, Pershore, Worcestershire WR10 3EP.

*On this oil, see Allen, *Ent. Rec.* 102: 297.—A.A.A.

[Since writing the above, the Research Department of The Body Shop (whom I gratefully thank) have acknowledged my request for clarification of a specific matter. They have confirmed that the carriers of their essential oils are either Almond Oil or Soya Bean Oil which may volatilise more slowly than the essential ingredients. This suggests that pure Cedarwood Oil should be the principal object of further experimentation. P.F.W.]

***Psammotis pulveralis* Hbn. (Lep.: Pyralidae) and other migrant Lepidoptera in the Dungeness area, 1990.**

On the morning of 4th August 1990, whilst examining the catch of the m.v. trap run at the Bird Observatory, Dungeness, Kent, both myself and David Walker, the warden, noticed a small, unfamiliar sandy-coloured moth fluttering under the perspex. It proved to be an example of *Psammotis pulveralis*, a pyralid moth last taken in Britain in 1903. Around this period, several other interesting species were taken in the Dungeness area, most not